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WOOD, HERRON & EVANS, LLP  
2700 CAREW TOWER  
441 VINE STREET  
CINCINNATI, OH 45202

EXAMINER
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WANG, RONGFA PHILIP

ART UNIT	PAPER NUMBER
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2191

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/617,422

Applicant(s)

MCNAIR ET AL.

Examiner

Philip Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 23-33, 42-47 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22, 34-41 and 48 is/are rejected.
- 7) ☒ Claim(s) 3 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/20/2004</u> | 6) <input type="checkbox"/> Other: _____  |

***Detail Action***

1. This office action is in response to the application filed on 7/11/2003.
2. Claims 1-49 are pending.

***Restriction***

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-22, 34-41, and 48, drawn to speech controlled system, classified in class 704, subclass 275.
  - II. Claims 23-33, 42-47, and 49, drawn to software program development tool, classified in class 717, subclass 100.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, group I is related to a multimodal software application and group II is related to developing multimodal software applications.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

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Based on phone message from Kurt Summe (Reg. No. 36,023) on December 29, 2006, a provisional election was made without traverse to prosecute the invention of group I, claims 1-22, 34-41, and 48. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-33, 42-47, and 49 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Specification***

4. The disclosure is objected to because of the following informalities: page 1 of the specification contains a blank application serial number.

Appropriate correction is required.

### ***Claim Objections***

5. Claims 3 and 17 are objected to because of the following informalities: It appears that the claim body has misplaced speech recognizer and speech synthesizer. The

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claim body should be "wherein the first set of peripheral devices includes a speech recognizer and the second set of peripheral devices includes a speech synthesizer".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 48 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Current Patent Office practice does not consider signal as a patentable subject matter because signal is considered as a form of energy.

Claim 48 recites the limitation of a computer-readable medium. According to the specification, page 11, line 5-10, "...Examples of signal bearing media include but are not limited to... among others, and transmission type media such as digital and analog communication links." Such communication links can be signals transmitted from one point to another point. It can be signal, therefore a non-patentable subject matter.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-15, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 18 recite the limitation of "the associated peripheral device" in "to the associated peripheral device" and "from the associated peripheral device". There is insufficient antecedent basis for this limitation in the claim. Claims 2-15 depend on claim 1 and suffer the same deficiency as claim 1. For purpose of art rejection, the examiner will assume "the associated peripheral device" as "an associated peripheral device".

Further claim 2, the phrase "can be" renders the claim indefinite because it is unclear if there are other possibilities for a peripheral device that are not listed in the claim.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4, 10, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Takayama et al. (US Patent No. 6,330,539).

As per claim 1,

Takayama et al. disclose

A system for executing a multimodal software application, comprising:

- the multimodal software application, wherein said multimodal software application is configured to receive first data input from a first set of peripheral devices and output second data to a second set of peripheral devices (c4:24-35, "...converting input speech...outputting an output semantic representation...");
- a dialog engine in communication with the multimodal software application, wherein said dialog engine is configured to execute a workflow description related to the multimodal software application and provide the first data to the multimodal software application; and a respective interface component associated with each peripheral device within said first and second sets; wherein each interface component is configured to provide the second data, if any, to an associated peripheral device and receive the first data, if any, from an associated peripheral device (c4:36-44, "...an innate operation unit for receiving an innate operation command from the dialog

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management unit..."; c4: 53-64, "...comprise dialog rules storage unit..." The examiner asserts that the dialog rules is a workflow description; c7: 45-57 & Fig. 4; c1: 5-9, "...a user interface adaptable...to a computer or an electrical device...").

As per claim 2,

the rejection of claim 1 is incorporated;

further Takayama et al. disclose

- wherein a peripheral device can be a member of both the first and second sets (c9:1-2, "...it is possible to integrate several of the same hardware parts into a single element...").

As per claim 3,

the rejection of claim 1 is incorporated;

further Takayama et al. disclose

- wherein the first set of peripheral devices includes a speech recognizer and the second set of peripheral devices includes a speech synthesizer (c8:41-43, "...speech recognition apparatus...a speech synthesizes apparatus...").

As per claim 4,

the rejection of claim 1 is incorporated;



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further Takayama et al. disclose

- wherein the multimodal software application further comprises a graphical user interface including a screen (c4: 6-13, "...it can be included as a part of the above-described multimodal interface..."; c1: 25-30, "...GUI"; this shows that GUI is widely used in multi-modal application).

As per claim 10,

the rejection of claim 1 is incorporated;

further Takayama et al. disclose

- wherein the dialog engine is further configured to redirect the first data to a third set of peripheral devices comprising selected members from the first and second set (c3: 13-17 and Fig. 3).

As per claim 16,

Takayama et al. disclose

A system for executing a multimodal software application comprising:

- a dialog engine in communication with a) the multimodal software application, b) a first set of peripheral devices for receiving first data, and c) a second set of peripheral devices for outputting second data; and said dialog engine configured to execute a workflow description related to

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the multimodal software application, wherein executing the workflow description includes generating the second data from the workflow description and providing the first data to the multimodal software application (c4:36-44, "...an innate operation unit for receiving an innate operation command from the dialog management unit..."; c4: 53-64, "...comprise dialog rules storage unit..." The examiner asserts that the dialog rules is a workflow description; c7: 45-57 & Fig. 4).

As per claim 17,

- see reason for rejection of claim 3.

As per claim 18,

the rejection of claim 16 is incorporated;

Takayama et al. disclose

- wherein the dialog engine is configured to communicate with each of the peripheral devices in the first and second sets via a respective interface component associated with each peripheral device within said first and second set; wherein the interface component is configured to provide the second data, if any, to an associated peripheral device and receive

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the first data, if any, from an associated peripheral device (c4:36-44,  
"...an innate operation unit for receiving an innate  
operation command from the dialog management unit...";  
c4: 53-64, "...comprise dialog rules storage unit..."  
The examiner asserts that the dialog rules is a  
workflow description; c7: 45-57 & Fig. 4; c1: 5-9,  
"...a user interface adaptable...to a computer or an  
electrical device...")..

As per claim 19,

- See reason for rejection of claim 4.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5-9, 11-15, 20-22, 34-41, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takayama et al. (US Patent No. 6,330,539) in view of Peterson et al. (US Patent No. 7,039,166).

As per claim 5,

the rejection of claim 4 is incorporated;

Takayama et al. do not specifically disclose

- wherein the workflow description comprises a set of workflow objects, wherein each workflow object is associated with a respective visual control within said screen.

However, Peterson et al. disclose

- wherein the workflow description comprises a set of workflow objects, wherein each workflow object is associated with a respective visual control within said screen (c2:45-54, "...visually representing..."; Fig. 14 and c33: 42-66, "...The nodes of the tree corresponds to IVR states or prompts, arcs correspond to state transitions...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Peterson et al. into the teachings of Takayama et al. to include a set of workflow objects, wherein each workflow object is associated with a respective visual control within said screen. The modification would be obvious to one of ordinary skill in the art to want to enable assessment of the system as suggested by Peterson et al. (c2: 47-49, "...enable assessment...").

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As per claim 6,

the rejection of claim 5 is incorporated;

Takayama et al. do not specifically disclose the claim limitation,

However, Peterson et al. disclose

- wherein each workflow object further comprises: a prompt related to the associated visual control; and a link to another workflow object (c3: 47-67) .

As per claim 7,

the rejection of claim 6 is incorporated;

Takayama et al. do not specifically disclose the claim limitation,

However, Peterson et al. disclose

- wherein each workflow object further comprises: a plurality of expected input values; and a help message (c4: 60-64, "...trigger by data inputted by a user or by internal processing...". To enable such triggering, data inputted must match certain criteria set by the system, therefore the expected input values; c3: 51, "...a first prompt generated upon entry..." The examiner asserts this prompt is a help message.) .

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As per claim 8,

the rejection of claim 6 is incorporated;

Takayama et al. disclose

- wherein each workflow object further comprises: a first identification of members of the first set from which first data can be received; and a second indication of members of the second set to which second data can be sent (c5: 9-16, "...identifying an origin of the input speech..."; c5: 17-26, "...data specifying the dialog target...").

As per claim 9,

the rejection of claim 6 is incorporated;

Takayama et al. do not specifically disclose the claim limitation,

However, Peterson et al. disclose

- wherein the prompt is the second data (c3:52-53, "...subsequent prompts triggered by data inputted by a user...").

As per claim 11,

the rejection of claim 6 is incorporated;

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Takayama et al. do not specifically disclose the claim limitation,

However, Peterson et al. disclose

- wherein each workflow object further comprises: a plurality of links, each link being to a different respective workflow object and each of the plurality of links having an activation criterion (c4:53-63).

As per claim 12,

the rejection of claim 11 is incorporated;

Takayama et al. do not specifically disclose the claim limitation,

However, Peterson et al. disclose

- wherein the activation criterion relates to a value of the first data(c4:53-63).

As per claim 13,

the rejection of claim 6 is incorporated;

Takayama et al. disclose

- instruct each interface component associated with a respective member of the first set to wait for the first data (c9: 54-64, "...an out-wait signal..."; see FIG. 11, step S12);

Takayama et al. do not specifically disclose

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- wherein the dialog engine is further configured to: execute a particular workflow object by outputting the prompt as the second data; based on the first data determine whether to follow the link; and execute said another workflow object

However, Peterson et al. disclose

- wherein the dialog engine is further configured to: execute a particular workflow object by outputting the prompt as the second data; based on the first data determine whether to follow the link; and execute said another workflow object (c4: 53-64, “).

As per claim 14,

the rejection of claim 6 is incorporated;

Takayama et al. disclose

- wherein the dialog engine is further configured to: receive the first data; and forward the first data to each interface component associated with a respective member of the second set (c5: 8-26).

As per claim 15,

the rejection of claim 4 is incorporated;

Takayama et al. do not specifically disclose the claim limitation,



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However, Peterson et al. disclose

- wherein the execution of the workflow description is synchronized to a display, by the dialog engine, of the graphical user interface (c2: 45-46, "...visually representing the behavior of a user...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Peterson et al. into the teachings of Takayama et al. to include the execution of the workflow description is synchronized to a display, by the dialog engine, of the graphical user interface. The modification would be obvious to one of ordinary skill in the art to want to enable assessment of the system as suggested by Peterson et al. (c2: 47-49, "...enable assessment...").

As per claim 20,

- See reason for rejection of claim 5.

As per claim 21,

- See reason for rejection of claim 6.

As per claim 22,

the rejection of claim 21 is incorporated;

Takayama et al. disclose

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- wherein the dialog engine further comprises: an execution unit configured to execute a particular workflow object (c4: 53-64);

Takayama et al. do not specifically disclose the rest of the limitation.

However, Peterson et al. disclose

- a prompt generator configured to output the prompt as the second data (c3:52-53, "...subsequent prompts triggered by data inputted by a user...");
- a data tester configured to determine if the first data received in response to the second data satisfies a set of criteria associated with the link (c3:52-53, "...subsequent prompts triggered by data inputted by a user...");
- and an object loader configured to load the another workflow object in the execution unit when instructed by said data tester (c3: 46-64, "...cause a branching in a call flow...a start state...other states of the finite-state machine represent subsequent prompts at which a branching occurs...").

As per claim 34,

Takayama et al. disclose

A method for executing a multimodal software application having a graphical user interface with a screen, the method comprising

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- the steps of: receiving a workflow description corresponding to the screen (c4: 54-67, "...the dialog management unit has functions for making deletions, changes, and additions with respect to the dialog rules...");).

Takayama et al. do not specifically disclose

- and executing the workflow description in synchronization with the graphical user interface.

However, Peterson et al. disclose

- and executing the workflow description in synchronization with the graphical user interface (c2:45-54, "...visually representing..."; Fig. 14 and c33: 42-66, "...The nodes of the tree corresponds to IVR states or prompts, arcs correspond to state transitions...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Peterson et al. into the teachings of Takayama et al. to include and executing the workflow description in synchronization with the graphical user interface. The modification would be obvious to one of ordinary skill in the art to want to enable assessment of the system as suggested by Peterson et al. (c2: 47-49, "...enable assessment...").

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As per claim 35,

the rejection of claim 34 is incorporated;

further Peterson et al. disclose

- wherein the step of executing includes the steps of: identifying a workflow object associated with a visual control on the screen; executing the workflow object; and identifying another workflow object linked to the workflow object (c3:46-64).

As per claim 36,

the rejection of claim 35 is incorporated;

Takayama et al. disclose

- instructing a second set of peripheral devices to wait for a response(c9: 54-64, "...an out-wait signal..."; see FIG. 11, step S12);
- and forwarding the response to the multimodal software application (c4:25-44).

further Peterson et al. disclose

- extracting a prompt from the workflow object; sending the prompt to a first set of peripheral devices; (c3:46-64).

As per claim 37,

the rejection of claim 36 is incorporated;

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Takayama et al. disclose

- further comprising the step of: forwarding the response to one or more of the peripheral devices of the first and second sets (Fig. 3).

As per claim 38,

the rejection of claim 36 is incorporated;

further Peterson et al. disclose

- further comprising the steps of: extracting a default help prompt from the workflow object; and sending the default help prompt to one or more of the peripheral devices of the first and second sets (c3: 46-64).

As per claim 39,

the rejection of claim 34 is incorporated;

further Peterson et al. disclose

- wherein the step of executing includes the steps of: outputting audio prompts corresponding to the screen; and receiving input via speech recognition system in response to the audio prompts (c3:46-64).

As per claim 40,

the rejection of claim 36 is incorporated;

Takayama et al. disclose

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- further comprising the steps of: extracting information regarding peripheral device membership in the first and second sets from the workflow object (c5: 9-16, "...identifying an origin of the input speech..."; c5: 17-26, "...data specifying the dialog target...")..

As per claim 41,

the rejection of claim 36 is incorporated;

further Peterson et al. disclose

- wherein the response also includes data related to the another workflow object(c3:46-64).

As per claim 48,

- it is the computer-readable medium claim corresponding to method claim 34 and is rejected for the same reason set forth in connection of the rejection of claim 34 above.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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It is noted that any citation [[s]] to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. [[See, MPEP 2123]]

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00AM - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Mary Stuetman*  
*Primary Examiner*